COLE
OFFICE ENVIRONMENTS

March 22, 1989

United States Environmental Protection Agency
Region III
841 Chestnut Building
Philadelphia, Pennsylvania 19107
Attn: Mr. Robert L. Allen

Dear Mr. Allen:

Enclosed please find the reports of the Hazardous and Solid Waste Amendments of 1984 (RCRA Re-authorization) that you requested for the Loucks Mill Road Plant, PAD098737794, referral number 3HW33.

If you have any questions concerning this report, please contact Edward Falkenstein at the number below.

Sincerely,

Mr. Garen Macdonald
Facilities Manager, Cole

Enclosures

GM/vc

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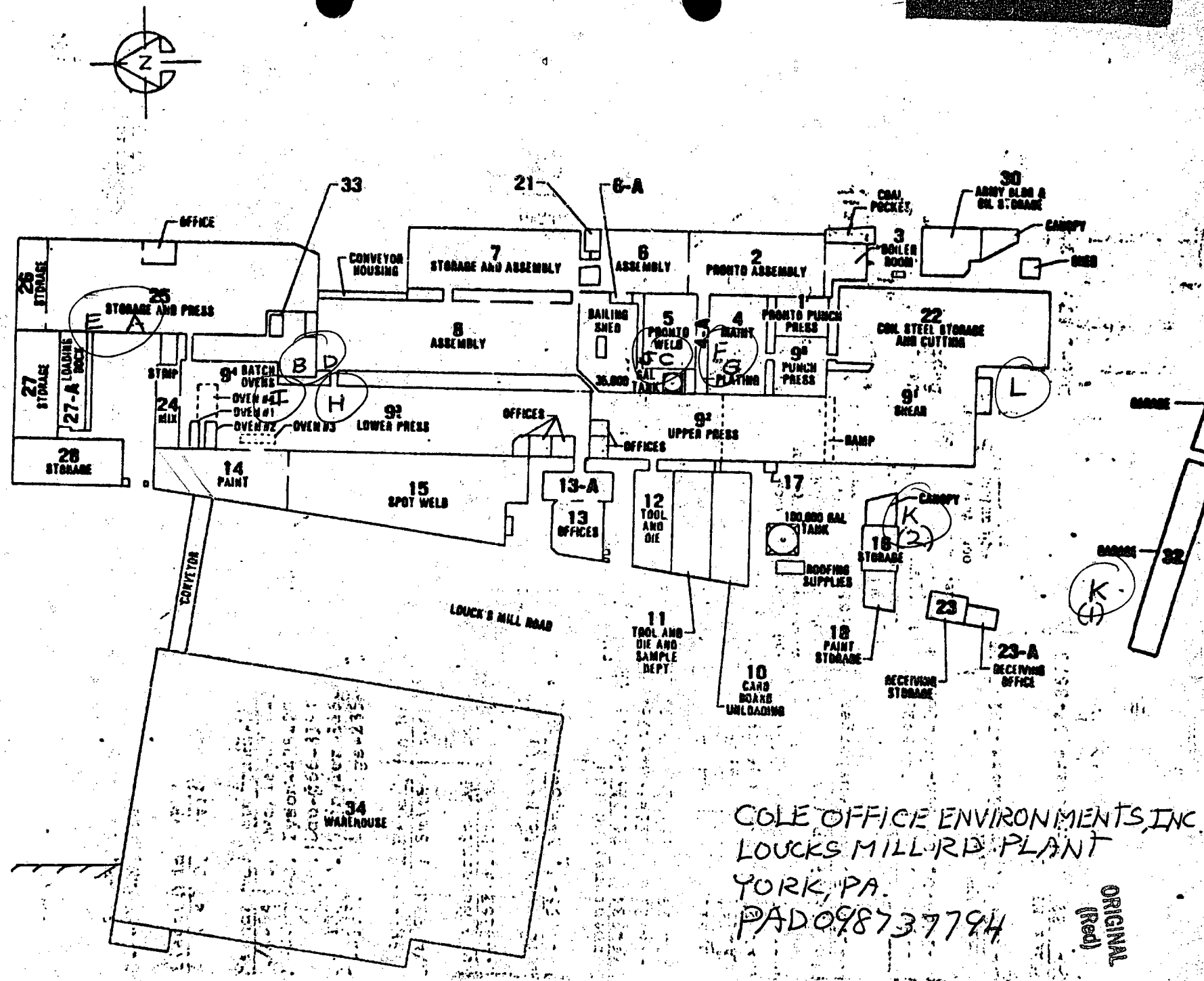

COLE OFFICE ENVIRONMENTS, INC.
LOUCKS MILL RD. PLANT
YORK, PA.
PAD987377794

ORIGINAL (Red)

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ORIGINAL
(Red)

REFER TO MAP LOCATION "A"

A continuous flow Industrial Chemical Wastewater Treatment plant has been operating since October of 1982. The operation consists of a 4,700 gallon influent equalization tank, two 500 gallon poly PH reaction tanks, 300 gallon poly flocculation tank, 3,000 gallon fiberglass clarifier tahk, a continuous backflush sand filter steel tank, 2,200 gallon sludge holding steel tank, 1,000 gallon poly effluent tank, sludge dewatering filter press, influent - effluent pumps and chemical feed pumps.

The wastewater plant received the zinc-chrome electroplating waste from the years 1982 through 1987. In the Fall of 1987 the plating operations were discontinued. The flow from plating rinse holding tanks were 4,000 gallons/day. Flows from other operations, include the phosphate washer rinse holding tanks, 10,000 gallons/day and the intermediate wastewater treatment system, 1,000 gallons/day. The intermediate waste is an emulsified alkaline solution and a cleaner with an alkaline oily solution. Deionizer unit waste is a highly caustic solution 300 gallons/day. There were no releases to the environment since this plant has been in operation.

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LOCATION "A" MONTHLY WASTEWATER TREATMENT MONITORING REPORT EFFLUENT

LOUCKS MILL ROAD PLANT MONTH JANUARY YEAR 1989 BY: EF

ORIGINAL

Date	Flow GPD	pH	TSS	Pt	Cr_t	Cr^{+6}	Fe	Al	Ni	Pb	Zn	Cd	Cu	[redacted]	Ag
Limit	-	6-10.5	350	-	0.6	-	250	-	1.0	0.5	1.0	0.5	0.8		
			MG/L	MG/L	MG/L		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L		MG/L
2	10,500	8.7		0.50	<0.02				0.01		0.08		0.02		
3	11,700														
4	13,100	9.1	6.0	0.37	<0.01		0.08		0.10	0.02	0.11		0.03		
5	14,500														
6	9,700														
7															
AVE		8.9	6.0	0.43	<0.01		0.08		0.05	0.02	0.09		0.02		
8															
9	9,400	9.2		0.68	<0.01				0.04		0.13				
10	12,600														
11	6,500	8.7	64	0.85	<0.02		0.52	0.21	0.02	<0.01	0.15	<0.01	0.03		<0.01
12	10,200														
13	18,600	9.1			<0.04				0.02		0.11				
14															
AVE		9.0	64	0.76	<0.03		0.52	0.21	0.02	<0.01	0.13	<0.01	0.03		<0.01
15															
16	13,400	9.4		0.75	<0.01				0.01		0.12		0.09		
17	11,800														
18	13,400	9.3	10	0.41	<0.01		0.12	0.58	0.01	<0.01	0.07		<0.01		
19	13,100														
20	11,500	9.3			0.01				0.01		0.09		<0.02		
21															
AVE		9.3	10	0.58	<0.01		0.12	0.58	0.01	<0.01	0.09		0.04		
22															
23	11,100	9.0			<0.01				<0.01		0.10		<0.02		
24	11,800														
25	12,600	8.7	20	0.41	<0.05		0.10	0.37	0.01	0.01	0.07	0.01	<0.02		0.01
26	12,300														
27	20,000	9.5			<0.04				0.02		0.07		<0.04		
28															
AVE		9.1	20	0.41	<0.03		0.10	0.37	0.01	0.01	0.07	0.01	<0.03		0.01
29															
30	11,700	9.2		1.14	<0.03				0.02		0.17		<0.01		
31	14,500														
AVE		9.2		1.14	<0.03				0.02		0.17		<0.01		
TOTAL	FLOW	239	500	GALS											
AVE	FLOW	10,	586	GALS											

COLE
OFFICE ENVIRONMENTS

ORIGINAL
(Red)

REFER TO MAP LOCATION "B"

Phased-out Industrial Chemical Wastewater Treatment Plant operated from the year 1974 through September of 1982. The unit consisted of two steel tanks with a 1,100 gallon per tank capacity. One each for chemical precipitation and clarification and the sludge was pumped to a sludge filter paper dewatering device. The wastewater plant treated all of the rinse waters from the two phosphate washer systems and the emulsified alkaline solutions from the paint stripping operations. The flow through this plant was 10,000 gallons/day. Wastewater plant limitations for phosphate removal did not comply with DER outfall standards. The duration of the non-conformance is not known because the waste plants previous operating records have not been located after the year of 1982. Attached to this report are two copies of the effluent analysis taken during the year of 1982.

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PLANT LMR - PHOSPHATE MONTH JULY - AUG YEAR 82

2

DATE	EFFLUENT pH	TSS	P^T	Cr^T	FE	Al	Pb	Zn	ORIGINAL (Red)
24									
25									
26	~~1.3~~	8.4	318	.14	19	44	.09	3.7	MG/L
27	9.4	23	1200	.09	15	31	.06	2.8	"
28	9.5	100	314	.15	19	64	.10	1.8	"
29	9.3	73	118	.14	16	39	.07	1.2	"
30	8.9	100	252	.10	21	20	.06	.98	"
AVE	9.2	61	440	.12	18	40	.08	2.1	"
31									
1									
2	8.8	92	184	.07	29	18	.10	1.3	"
3	9.3	84	206	.16	28	36	.14	2.1	"
4	9.4	66	244	.10	28	36	.08	1.5	"
5						SHUT DOWN			
6									
AVE	9.2	81	211	.11	28	30	.11	1.6	"
7									
8									
9				SHUT DOWN					
10	8.7	170	726	.16	110	22	.23	4.0	"
11	8.3	71	402	.13	43	21	.17	1.9	"
12	7.7	150	420	.05	6.9	14	.09	.44	"
13	7.8	140	62	.04	9.3	10	<.05	<.5	"
AVE	8.1	133	403	.09	42	17	.14	1.6	"
MONTHLY AVE.									

PLANT LMR-PHOSPHATE MONTH JUNE YEAR 82

2

DATE	EFFLUENT								ORIGINAL (Red)
	pH	TSS	PT	Cr^{T}	Cr^{+6}	FE	Al	ZN	
12									
13									
14	8.5	61	882	.18	100	45	.36	1.4	MG/L
15	8.4	100	844	.25	88	39	.53	1.4	"
16	8.2	60	390	.35	64	30	.52	1.6	"
17	8.2	30	466	.24	59	27	.40	2.5	"
18	8.0	54	610	.24	72	27	.47	2.0	"
AVE	8.3	61	638	.25	77	34	.38	1.8	"
19									
20									
21	7.6	31	482	.15	41	29	.20	1.2	"
22	8.7	73	888	.08	87	51	.28	1.7	"
23	8.5	71	1100	.08	94	42	.22	1.0	"
24	8.5	94	770	.15	57	35	.24	1.0	"
25	8.6	65	500	.10	56	36	.32	.90	"
AVE	8.4	67	748	.11	67	39	.25	1.2	"
26									
27									
28	8.7	40	474	.15	40	19	.21	.90	"
29	9.2	64	914	.07	70	59	.32	1.7	"
30	9.6	29	564	.12	34	54	.38	1.3	"
1	9.5	140	116	.06	18	47	.24	2.1	"
2	1.3	1700	390	.12	36	40	.38	2.0	"
AVE	7.7	395	492	.10	40	44	.31	1.6	"
MONTHLY AVE.	8.4	67	675	.17	73	53	.32	1.7	

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OFFICE ENVIRONMENTS

ORIGINAL
(Red)

REFER TO MAP LOCATION "C"

Phased out and removed Industrial Chemical Wastewater Plant operated from the year 1974 through September of 1982. The unit consisted of two steel tanks with a 1,100 gallon per tank capacity. One each for chemical precipitation and clarification and the sludge was pumped to a sludge filter paper dewatering device. The wastewater plant treated all the rinse water tanks from the electroplating zinc-chrome operations. The chemicals used in the plating process were alkaline cleaners, zinc solution and chrome brighteners. Wastewater plant limitations for the metals zinc, aluminum, iron and total suspended solids removed did not comply with DER's outfall standards. The duration of the non-comformance is not known because the waste plants previous operating records have not been located after the year of 1982. Attached to this report are two copies of the effluent analysis taken during the year of 1982.

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PLANT EMR-ZINC MONTH AUG-SEPT YEAR 82

2

ORIGINAL (Red)

DATE	EFFLUENT								
	PH	TSS	P^T	Cr^T	Cr^{+6}	Fe	AL	ZN	
14									
15									
16	BAD SAMPLE	41	.229	.04	.014	11	88	67	MG/L
17	BAD SAMPLE	<1.0	.397	.04	.026	11	22	22	"
18	9.7	21	.348	.03	.010	3.1	20	6.6	"
19	9.7	32	.520	.11	.011	5.5	13	13	"
20	9.0	30	.309	.11	<.010	4.6	10	11	"
AVE	9.5	25	.361	.06	.014	7.0	31	24	"
21									
22									
23	8.9	18	.174	.04	<.010	2.5	7.0	8.4	"
24	5.8	350	1.62	1.4	<.010	200	9.0	29	"
25	9.9	22	.220	.48	<.010	6.4	17	9.2	"
26	9.0	35	.492	.32	<.010	5.1	16	6.7	"
27	6.3	140	.101	.21	.046	54	15	52	"
AVE	8.0	113	.521	.49	<.010	54	13	21	"
28									
29									
30	8.7	3.6	.178	.48	<.010	24	4.2	18	"
31	9.1	15	.170	.49	<.010	4.4	9.6	10	"
1			SHUT DOWN						
2				SHUT DOWN					
3									
AVE	8.9	9.3	.174	.49	<.010	14	7.0	14	
MONTHLY AVE.	8.9	23	.403	.03	<.010	5.5	19	11	

PLANT LMR-ZINC MONTH JULY-AUG YEAR 82

2

DATE	EFFLUENT PH	tss	P^{+}	CR^{+}	CR^{+6}	FE	AL	ZN (ORIGINAL Red)	
24									
25									
26	9.6	14	.490	L.02	L.010	3.7	53	15	MG/L
27	8.9	21	.668	L.02	L.010	2.3	12	7.7	"
28	8.8	15	.559	.02	L.010	2.4	14	5.9	"
29	8.0	39	.328	L.02	L.010	.23	10	3.5	"
30	8.5	21	.310	L.02	L.010	3.2	8.0	5.4	"
AVE	8.8	22	.47	L.02	L.010	2.4	19	7.5	"
31									
1									
2	8.6	15	.508	.03	L.010	3.8	11	5.5	"
3	8.9	16	.541	.03	L.010	2.1	16	3.0	"
4	8.7	15	.304	.06	L.010	4.9	10	5.2	"
5									
6									
AVE	8.7	15	.450	.03	L.010	3.6	12	4.6	"
7									
8									
9				SHUT DOWN					
10	7.5	59	.574	L.02	L.010	18	7.0	7.0	"
11	8.0	24	.123	L.02	L.010	4.7	1.0	5.8	"
12	BAD SAMPLE	17	.320	L.02	L.010	4.1	11	8.7	"
13	9.7	25	.308	.03	L.010	8.3	37	10	"
AVE	8.4	31	.331	L.02	L.010	8.8	14	7.9	"
MONTHLY AVE.									

COLE
OFFICE ENVIRONMENTS

ORIGINAL (Red)

REFER TO MAP LOCATION "D"

The Intermediate Wastewater Treatment System had been in operation since October 1982 and consists of a 2,200 gallon steel tank, three 900 gallon steel tanks and sludge filter paper dewatering device. This unit collects the first stage washer system cleaning solution into the 2,200 gallon steel tank. The waste from the cleaner tank is a non-regulated alkaline oily solution. When the oil is separated inside the tank the solution is metered in the wastewater flow. This tank is also used for the non-regulated spent phosphatizing waste solution from the washer systems. The solution is drained into the tank and then pumped to a 5,000 gallon tank truck and hauled away to a disposal facility.

The paint stripper rinse water is a non-regulated emulsified alkaline solution. The rinse waters are pumped into the 900 gallon steel tanks, there the paint pigments and resins are separated from the rinse water. The pigments and resins settlements are transfered to a steel drum and the rinse water metered into the wastewater flow. There were no releases to the environment since the Intermediate Treatment System has been operating.

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COLE
OFFICE ENVIRONMENTS

ORIGINAL
(Red)

REFER TO MAP LOCATION "E"

The company installed a solvent recycler unit in the year of 1988 and the recycler unit was started up and tested in June of 1988. Spent solvent collected from the paint spray line operations has an excessive amount of paint in the spent solvent causing the recycler unit to malfunction. The test results were negative and a decision was made by management not to operate the recycler unit. The solvents used in cleaning the paint spray lines are 80% toluene and 20% acetone. There were no releases to the environment during the testing.

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COLE
OFFICE ENVIRONMENTS

ORIGINAL
(Red)

REFER TO MAP LOCATION "F"

A chrome reduction treatment system located at the zinc-chrome electroplating operated from the year of 1974 through 1984. The chrome reduction treatment system was phased-out because the chrome brightener rinse water flows were diverted to the plating rinse water transfer tank then treated at the wastewater plant. The unit consists of a 3,000 gallon steel tank and chemical feeders. Overflow from the chrome brightener rinses were drained to the chrome reduction treatment tank, treated then recycled back to the rinse tank. The treatment system treated 4,500 gallons/day. There were no releases to the environment during the treatment operation.

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COLE
OFFICE ENVIRONMENTS

ORIGINAL
(Red)

REFER TO MAP LOCATION "G"

The company discontinued the use of cyanide in the zinc-chrome electroplating operations in the year of 1977. A cyanide treatment system had been in operation from the year 1974 through 1977. The unit consists of a 2,000 gallon steel tank, gas clorinators, air diffusers and chemical feeders. A cyanide rinse tank was located after the zinc solution tank. The overflow from the cyanide rinse tank was drained, to the cyanide treatment tank, treatment for cyanide reduction then recycled back to the rinse tank. The treatment systems treated 4,500 gallons/day. There were no releases to the environment during the treatment operation.

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COLE
OFFICE ENVIRONMENTS

ORIGINAL
(Red)

REFER TO MAP LOCATION "H"

The deionizer units utilizing acid and caustic solutions controls the PH of the phosphate washer solution. Maintaining a certain PH range is important for cleaning metal cabinets. The deionizers are required to be backflushed daily and this highly caustic hazardous waste is transfered into a 900 gallon poly tank. From this accumulation tank the waste is slowly metered into the wastewater system. There were no releases to the environment since the deionizers have been operating.

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COLE
OFFICE ENVIRONMENTS

ORIGINAL
(Red)

REFER TO MAP LOCATION "I"

At this location is a 4,700 gallon steel rubber lined transfer tank with a sump pump. The following waste is drained to this tank: Phosphate cleaning rinse tanks, deionizer backwash water and effluents from the intermediate waste treatment systems. All these waste streams are then pumped to the wastewater plants equalization tank. There were no releases to the environment since this tank has been operating.

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COLE
OFFICE ENVIRONMENTS

ORIGINAL
(Red)

REFER TO MAP LOCATION "J"

Phased-out and removed zinc-chrome electro-plating rinse water transfer tank. This was a 2,300 gallon steel tank with a centri-fugal pump. All of the rinse waters from the plating operations drained to the tank then pumped to the wastewater treatment plant. There were no releases to the environment during this operation.

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COLE
OFFICE ENVIRONMENTS

ORIGINAL
(Red)

REFER TO MAP LOCATION "K"

K- (1)

At this location is a 50 foot square drum storage area with a 6 inch high curbing around the outside perimeter. Non-regulated waste steel drums and hazardous waste steel drums are identified and stored before transporting the drums to a disposal facility. There were no releases to the environment from this storage area.

K- (2)

A 20 cubic yard steel container is used to store and transport the non-regulated wastewater treatment plants filter cake studge. There were no releases to the environment from this container.

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COLE
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ORIGINAL
(Red)

REFER TO MAP LOCATION "L"

At this location is an empty underground 12,000 gallon steel tank. This underground tank had been used to store spent solvents of 80% toluene and 20% MEK from the paint spray lines. Sometime in the year of 1978, the solvent was pumped out into tank trucks and hauled to a disposal facility. This underground tank is still empty and has not been used since. There were no releases to the environment while this storage tank was used.

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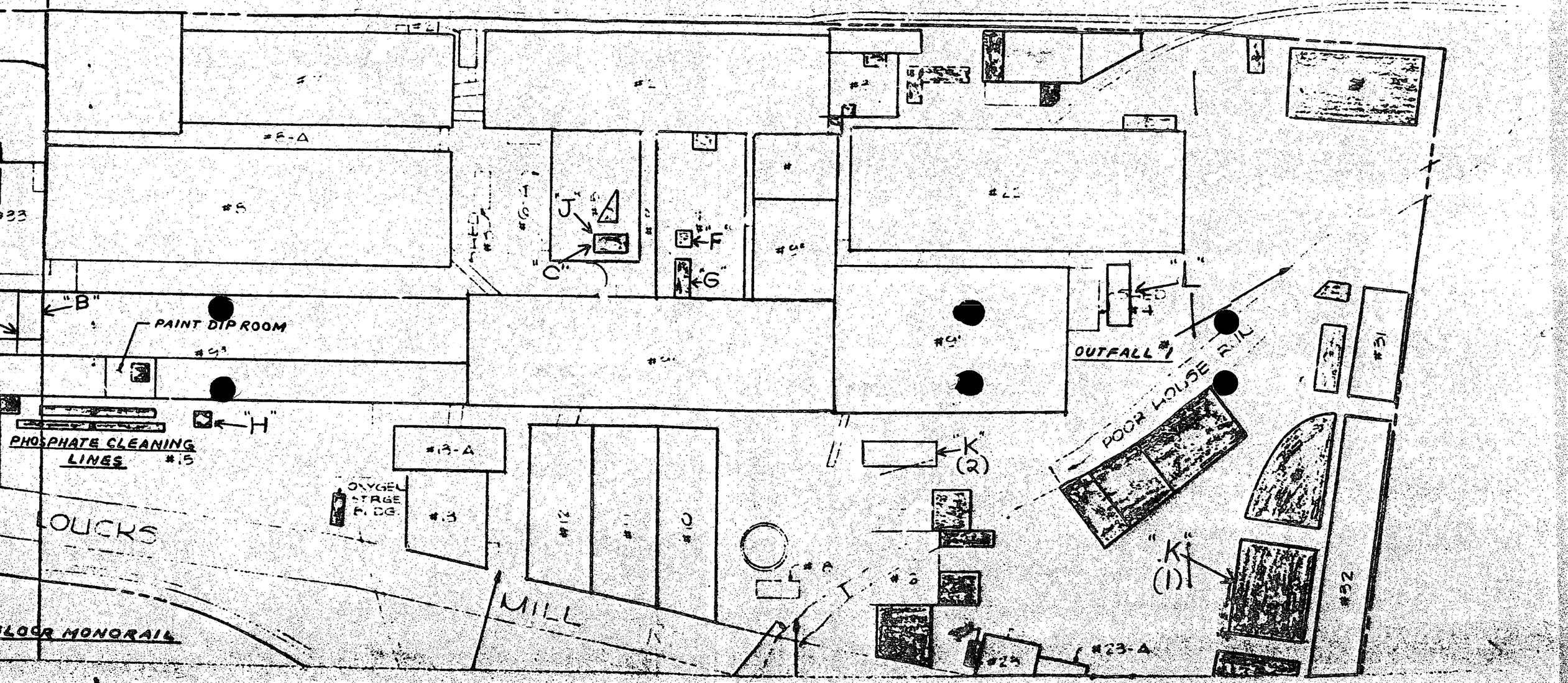

COLE OFFICE ENVIRONMENTS, INC.
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YORK, PA.
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